Agric Hum Values (2012) 29:185–201
DOI 10.1007/s10460-011-9333-y

Compounding crises of economic recession and food insecurity: a comparative study of three low-income communities in Santa Barbara County

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Accepted: 25 August 2011 / Published online: 15 October 2011
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Abstract Santa Barbara County exhibits some of the highest rates of food insecurity in California, as well as in the United States. Through ethnographic research of three low-income, predominantly Latino communities in Santa Barbara County, this study examined the degree to which households had been experiencing heightened levels of food insecurity since the economic recession and ensuing coping strategies, including gender-specific repercussions and coping strategies. Methods included administering a survey with 150 households and conducting observation and unstructured interviews at various local food-centered venues. Results indicated that households from the three communities were experiencing heightened levels of food insecurity and that all three communities were employing diversification of procurement, adjustments to a reduced or limited food budget, reliance on food assistance, and revitalization of the home as a site of domestic food production and preparation as coping strategies. The results also suggested that women suffered disproportionately higher psychological and physical costs associated with compounding crises. In conclusion, the experiences narrated by low-income households reflect a form of citizenship that appears compromised by a host of variables perceived to exist outside the realm of local control. Shifting toward an operational framework of food sovereignty may allow these communities to become more resilient in the face of future political, environmental, social, and economic stressors.

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Keywords Household food security · Community food security · Food sovereignty · Gendered cost of food

Introduction

Latinas/os in southern California have been marginalized politically, economically, culturally, and spatially (Irazabal and Farhat 2008). While comprising about one-third of the population in Santa Barbara County (herein SBC) (Census 2008), 62.3% (99,000) of Latinos live at 200% and below the federal poverty level ($44,000) (adjusted locally to $53,700 for a household of 4) (CHIS 2007; Loyn 2008; HACSB 2010; USDHHS 2010). Latinas/os living in SBC face a host of challenges, from a lack of living wages to the scarcity of affordable housing (County of Santa Barbara 2008; Casa de la Raza 2010; SB PUEBLO website 2010). Although the majority of residents in the *barrios* of SBC are Latino, these urban areas of the county are highly diverse in terms of race, ethnicity, generation, and immigration status (Camarillo 1979; Irazabal and Farhat 2008). Additionally, Latinas/os in SBC have low representation in local politics (Camarillo 1979; Irazabal and Punja 2009) and recent instances of political upheaval in other areas of southern California, such as the bulldozing of the South Central Farm in Los Angeles and plans to transform the urban landscape, demonstrate how low-income Latino families are repeatedly excluded from the formal political processes that inevitably render spatial, economic, and health-related consequences for these communities (Irazabal and Farhat 2008).

The rate of food insecurity prevalence in SBC (39.5%) ranks 47th out of California's 58 counties and above the California average (34.8%) (CFPA 2010). More than two-thirds of households with food insecurity identify as Latino

or Hispanic (CHIS 2007). Low-income Latinas are particularly at risk (CFPA 2002; CFPA 2003; CHIS 2007; Harrison et al. 2007). Moreover, these households are disproportionately affected by adverse health conditions, many diet-related. For instance, the California Health Interview Survey estimated that 68.9% of the Latino population in SBC was overweight or obese and that Latinos accounted for more than half of county residents diagnosed with Type II diabetes (CHIS 2007).

Since the beginning of the financial crisis, many non-governmental organizations and research institutes forecasted an increase in current rates of food insecurity to include an unprecedented number of households with slightly higher incomes (Harrison et al. 2007; Young 2008). Rising unemployment, inflation of food prices, plummeting wages, and burgeoning costs of fuel and housing have contributed to the increased prevalence of food insecurity (Harrison et al. 2007; Young 2008), as food expenditures are often relegated to the most flexible item in the household budget (Harrison et al. 2007). Few studies have investigated the consequences for household and community food security resulting from the sudden eminence of the economic crisis. The present study examines the relationship of economic recession to food insecurity in low-income Latino households of SBC and responses by households and communities.

This study, like other urban and peri-urban community food assessments in the United States (Pothukuchi et al. 2002; Pothukuchi 2004, 2007), attempts to provide more dynamic measurements of household and community food security (CFSC 2002; Pothukuchi et al. 2002; Pothukuchi 2004; Allen 2007) than that which is provided through national surveys. Community food assessments capture nuanced data relating to the experience of food insecurity as it manifests at the level of communities and households (Pothukuchi et al. 2002, 2004). Community food assessments attempt to democratize research by invoking participation of community members in some or all phases of the research process (Pimbert 2007), often eliciting beneficial outcomes such community-based interventions, food policy councils, and other perceived emerging forms of food sovereignty (CFSC 2002; Pothukuchi et al. 2002; Pothukuchi 2007; Pimbert 2008). Research in the tradition of community food assessments thus promises both broader implications for policy at multiple levels and more participatory community planning. The results of this study have already provided some foundations for more participatory planning and coordination at the community level in SBC through the establishment of a county food policy council in 2009.

In addition to measuring and evaluating the food security of Latino households and communities in SBC, this study assesses the degree of autonomy and control, characterizing the attitudes and behaviors of study participants around procurement, preparation, and consumption. Policies and activities in favor of a global-industrial food system tend to dismantle the capacity for a food-secure society (Spieldoch 2007; Pimbert 2008; Rae 2008; Stanford 2009). Thus, the coping strategies demonstrated by households and communities may serve not only to alleviate food insecurity in the short-term but also to build long-term resilience to future disturbances.

Policies resulting from the concept of food security have been criticized, most importantly on the grounds that they have become too apolitical, technocratic and top-down, and generally unable to take into consideration the broader community, national, and global political economy which affect all aspects of food security (Spieldoch 2007; Katz 2009; Stanford 2009). The global-industrial food system – characterized by privatization, deregulation, and trade liberalization – renders food a “commodity” (Murray 2001; Pritchard and Burch 2003; Phillips 2006; Spieldoch 2007) to the detriment of food security (Li Ching 2008). Although the right to food was declared “binding international law” (Rae 2008) through the International Covenant on Economic, Social and Cultural Rights, policymakers continue to segregate trade rules from human rights’ goals in addressing food security (FAO 2003; Pimbert 2007; Spieldoch 2007; Pimbert 2008; Rae 2008). The concept of food sovereignty, loosely defined as the right to food and the right to control food production and distribution channels (Via Campesina 2009), has been proposed as a more appropriate concept than food security, particularly in the context of human rights and rights-based food system discourse (Phillips 2006; Spieldoch 2007; Anderson 2008; Pimbert 2008). In the tradition of other anthropological research of its kind, this paper argues for an alternative framework in interpreting household and community response to compounding crises of economic recession and food insecurity, seeking “to establish what gaps may exist between perceptions policy-makers hold and the ‘lived’ realities of people who experience food stress,” (Pottier 1999: 16).

Another focus of this study is the gendered experience of food insecurity. Although data on the number of Latina residents in SBC who are food insecure does not reflect recent increases, the California Health Interview Survey reports that nearly 50% of low-income Latinas in SBC were food insecure in 2006, and neighboring counties such as Los Angeles, provide estimations upwards of 40% (Ruelas 2004; UCLA 2004; Herman et al. 2006a; LACDH 2007), significantly higher than food insecurity among Latino men. Numerous studies demonstrate the disproportionate costs of the global-industrial system for women, particularly how women as consumers are increasingly vulnerable to fluctuations in food prices (Tripp 1997), to

negative impacts on health resulting from food and nutritional insecurity (Gladwin et al. 2001; Townsend et al. 2001; Hawkes 2007; Spieldoch 2007; Rae 2008), and to job insecurity within the food sector (Barndt 1999). The ability to feed families and ensure household food security may provide a source of power for women (Van Esterik 1999; Rae 2008) that the global-industrial food system undermines, as simultaneously women are subordinated through these reproductive activities and other domains of food work (Allen and Sachs 2007). Therefore, this study is also concerned with gender-specific repercussions of economic recession and food insecurity, and subsequent implications for the coping strategies of households.

Methodology

Data collection took place from October 2008 until May 2009, coinciding with what has been estimated as the worst moment of the economic recession (NBER (National Bureau of Economic Research) 2008) and following what some deemed the peak of the world food crisis (FAO 2009). The principal investigator was accompanied by three research assistants in conducting surveys with 150 households. The survey included 20 questions, the majority addressing household food procurement, preparation, and consumption. The purpose and nature of the survey was explained to informants prior to their participation. More than two-thirds of survey interactions were recorded using a digital audio recorder to ensure complete data collection. The remaining one-third of study participants requested not to be recorded. Approximately two-thirds of survey interactions were administered in Spanish; all others were administered in English. The age range of participants was 18–65, 62% were women, 38% were men, 74% self-identified as Hispanic or Latino, and 23% were unemployed (see Tables 1, 2). Surveys were conducted on weekdays during the early evening and midday on some Saturdays to maximize the number of household heads that would have returned home from work. Still, many household heads were not in residence during these survey times per working schedules.

Santa Barbara County is informally divided into North County and South County for certain economic and political reasons. Differences between the two regions informed research site selection. While North County is more rural, agricultural, and a common destination for seasonal farm laborers, South County, which includes the more urban and affluent cities of Santa Barbara and Montecito, is situated along the coast and caters to the tourism industry. Although historically South County was also an agricultural region, changes in land-use have resulted in fewer farms and increased suburban development (SBCPD 2002). Today, agriculture in South County consists mostly of small-scale, organic producers for whom the economic viability of farming, consistent with national trends (Hoppe et al. 2010), is an on-going challenge. Between areas of concentrated wealth within South County, many instances of poverty and high-density living are observable. The decision to focus on South County was based on several characteristics, including the large gaps in socio-economic status of South County residents, ethnic diversity of neighborhoods, history of the region (particularly in the barrios and urban areas), and proximity of the region to the University of California at Santa Barbara (UCSB).

Survey sites were selected using US census data regarding population density of Latinos and levels of income (Bernard 2006). Study participants were not asked about income, thus it was assumed that most households qualified as low-income unless indicated otherwise through conversation. Three low-income neighborhoods were surveyed for comparative analysis of food insecurity, namely Eastside Downtown Santa Barbara (herein ESB), Goleta, and Carpinteria. Fifty households from each site were surveyed, for a total sample of 150 households. In addition to collecting data through surveys, observations and unstructured interviews were conducted at various food-centered venues, including weekend markets and swap meets, locally-owned retail food outlets, corporate supermarkets, community gardens, and offices of food assistance programs.

Table 1 Profiles of surveyed communities

	Eastside downtown	Goleta	Carpinteria
Women (N)	25	31	37
Men (N)	25	19	13
Age (mean)	40	38	42
Household Size (mean)	3.86	3.32	2.96
Number of Children (mean)	2.24	1.82	2
Unemployment	14% (Women: 20%; Men: 8%)	30% (Women: 39%; Men: 16%)	26% (Women: 32%; Men 8%)
Self-identified Hispanic/Latino	84%	72%	66%
Perceived food insecurity	58%	68%	76%

Table 2 Research sample (All communities)

	Total
Women	93 (62%, N = 150)
Men	57 (38%, N = 150)
Age (mean)	40.3
Household Size (mean)	3.38
Number of children (mean)	2
Unemployment	23%
Self-identified Hispanic/Latino	74%
Perceived food insecurity	67%

Funding was provided by the Institute for Research on Labor and Employment through the University of California at Los Angeles. Partial dissemination of data and results from the study are included in this article. Study protocol was approved by the human subjects office of UCSB.

Format of the survey instrument

While some background information on study participants, such as employment status and occupation, household size and composition, number of dependents and ages, ethnicity, and community affiliations was obtained, the bulk of the survey focused on food procurement, preparation, allocation, and household food security. US Department of Agriculture parameters of food security: "access to enough food to fully meet basic needs," (Life Sciences Research Office 1990; Blumberg et al. 1999) and "assured access to nutritionally adequate and safe foods without resorting to emergency food supplies, scavenging, stealing, and other coping strategies," (Life Sciences Research Office 1990; Blumberg et al. 1999) were used for survey design. The survey accounted for dimensions of household food insecurity as conceptualized by the USDA through the Household Food Security Survey Module (HFSSM): "self-perceived nutritional adequacy, household food depletion, disrupted eating patterns, and the repetitive pattern of reduced food intake," (Blumberg et al. 1999). While the HFSSM does not account for coping strategies of households (Wunderlich and Norwood 2006), it was a goal of the present study for the survey to examine the entire spectrum of experience with food insecurity, specifically how households grapple with chronic food insecurity on a daily basis.

Characteristics of survey sites

From the bustle of suburban life, the research sites at first glance appeared unaffected by recent economic stressors. The three survey sites shared in common several social and cultural attributes. Residential streets were busy with children's play, neighbors conversing on the sidewalk, and street vendors pushing carts of food for sale. The smell of toasted tortillas emanated from nearby homes during evening survey times. Saturdays, a likely opportunity for socializing and housekeeping, were memorably marked by families partaking in yard work, boisterous birthday parties, the noxious whiff of cleaning chemicals, and smoking barbecues. Mothers transported their children and a week's worth of laundry to the local *lavanderia* in grocery store shopping carts. Several residences boasted pious signage and figurines within view of doorsteps, possibly displayed to ward away proselytizers. These included signs inscribed with "Somos católicos" and "Esta casa es católica" and different manifestations of the Virgin of Guadalupe.

Signs of economic and community insecurity were also apparent. Several abandoned homes, some marked by foreclosure signs stating "bank owned," interspersed survey routes. One resident expressed her concern with the safety of the neighborhood, "I like this complex. The manager is nice. But I don't like this neighborhood. All Mexican and a lot of cowboys. There are a lot of problems in this neighborhood. It's not safe for my kids to go outside. It's a busy street, like after six o'clock there are gangsters on the street." It is perhaps significant that this woman was non-Hispanic living in a predominantly Hispanic community. While her statement was rife with prejudice, security measures adopted by neighboring households seemed to suggest similar attitudes. Chain-link fences with locked gates encircled most residences in both ESB and Goleta and guard dogs proved at times dissuasive to the research goals. Although some tensions were detectable among residents regardless of ethnic similarity or difference, these communities did not seem particularly unsafe. In a time of economic crisis, it was not surprising that community relations may have become especially strained.

The level of impoverishment in these communities has previously elicited the attention of various researchers and non-governmental organizations, thus exhausting many individuals from participation in research or other programs initiated by outsiders. For this reason, some households seemed to lament the arrival of surveyors, or greeted such persons with apprehension, suspecting affiliation with a governmental agency or there on behalf of a landlord (which may have been disconcerting especially for undocumented residents). While the overall participation rate of households in the survey was better than anticipated (about a 25% rejection rate), it was not uncommon for households to request some form of identification to corroborate the identity of researchers and purpose of the study.

Economic recession and food insecurity: community and household effects

Repercussions of compounding crises of economic recession and food insecurity for low-income Latino households of South Santa Barbara County were observed through the prevalence of unemployment, price volatility of food, inadequate transportation and limited mobility, increased consumption of fast food, and limited or inadequate food and nutrition knowledge. These conditions characterized all of the communities yet some to a greater degree than others.

Unemployment

Perceived levels of mild to severe food insecurity occurred in households with unemployed independents, independents employed part-time, and multiple dependents (where household size $N > 2$). Unemployment rates for ESB, Goleta, and Carpinteria were 14, 30, and 26%, respectively. Unemployment rates from the present study surpassed both the national rate of 8.9% (as of April 2009) and the statewide rate for California of 11% (as of April 2009) (BLS 2009). In terms of men's versus women's unemployment, results seemed to contradict findings from the Bureau of Labor Statistics that the economic recession was proving more detrimental for men's employment; women actually reported higher incidence of unemployment than men (see Table 1).

Many study participants complained about job insecurity, "La gente que tiene un trabajo ahora si, mañana no," (*People have a job today, but not tomorrow*) and irregular work schedules, "Mi pareja entonces, ella descansa puede ser lunes, lunes a viernes, no se que días, sabado a domingo, trabaja. No tengo un horario estable," (*My partner is off Monday, Monday through Friday, I don't know what days, but then she works on the weekends. And I don't have a stable work schedule*). Considering previous findings from studies linking unemployed and undocumented individuals to the highest risk group for food insecurity (Harrison et al. 2007), households from this study without steady employment, or individuals employed part-time and seasonally, seemed especially vulnerable to food insecurity.

The increased demand for a part-time work force further suggests incidence of the labor vulnerability and "apartheid-like" political economy characteristic of California that disenfranchises low-income and racially marginalized communities (Cammarota 2008). Also referred to as the "feminization" of labor, labor relations are becoming increasingly flexible on a global scale (Phillips 2006), and exploiting "deeply ingrained and institutionalized sexism and racism," is a common strategy in the search for cheaper labor (Barndt 2001:164). The instability of employment may compound the experience of food insecurity by rendering more stress for households, yielding adverse changes in family interactions (Wunderlich and Norwood 2006). Several study participants referred to recent tensions among household members due to disagreements over resource allocations and elevated levels of anxiety; the uncertainty of when and from where one will receive her next paycheck or her next meal speaks to the less-known and less-researched psychological and emotional dimensions of food insecurity.

While information on the immigration status of household members was not collected as to not deter participation and to protect the anonymity of participants, information retrieved through survey responses suggested a strong presence of undocumented immigrants in these communities. Information on household composition was particularly useful in documenting this phenomenon. A significant number of "multiple worker" households were observed, consisting of men employed through seasonal contracts from Mexico. These men claimed to share food with one another both within the household and while on the job; reciprocity among Latinas/os is common cultural strategy for redistribution of wealth in social networks (Velez-Ibanez 1996). Yet it was unclear if multiple worker households also engaged in sharing with their low-income neighbors. The seasonal migration of farm laborers to SBC and corresponding effects on their food insecurity has been documented elsewhere (Burns 2004a, b) but deserves further exploration, particularly in terms of the relationship between seasonal laborers and low-income residents.

Price volatility

Households perceived mild to severe volatility of food prices since the economic recession; 44% of residents from ESB, 24% of residents from Goleta, and 50% of residents from Carpinteria reported a noticeable increase in the price of food within recent months. Responses varied from "I can say it's tough right now," to "Es máscaro ahora," (*It's more expensive now*) to even some that thought food in the US was at least cheaper than abroad, "No son caros como en Mexico," (*Food isn't as expensive here as it is in Mexico*).

The rate of inflation in the US at the time of the survey was the highest in 17 years (Young 2008; BLS 2009), especially for protein-rich foods. Many participants lamented a lack of protein in diets: "Milk, anything dairy, it's just going through the roof,"; "Algunos son caros, como la carne," (*Some foods are expensive, like meat*); "A veces queremos carne, a veces, pero no tenemos el dinero," (*Sometimes we want meat but we don't have the money to buy it)*; "Unas cosas son más caras. Como la comida…la

carne," (*Certain things are more expensive. Like food…–like meat*); "It's gotten really expensive in the last year. Milk and cheese is really expensive. It's already expensive to live here. It's like you have to pay to eat too?" Some households admitted to purchasing and consuming less food since the economic recession, providing statements such as "Tratamos no comer tanto," (*We are trying to not eat as much*), and "I don't buy as much as I used to."

Increases in the price of food may translate to less robust food budgets with severe dietary consequences for low-income households (Harrison et al. 2007; Townsend et al. 2009). Energy-dense but nutrient-poor diets, devoid of whole fruits, vegetables and high-quality lean protein, characterize low-income households in California (Townsend et al. 2009). Economic recession seemed to have only further impaired low-income households from obtaining nutritionally adequate diets. While some households perceived no change since the economic recession, "Los alimentos siempre son muy caras," (*Food is always really expensive*), attitudes of barely surviving were extremely common. A study participant from ESB explained forebodingly, "Ya no podemos vivir," (*We already cannot survive*), which was echoed by residents from Carpinteria, "We haven't started going hungry, yet," and from Goleta, "Sure we have email! Food? High speed Internet? We got that! Cell phones, fine! Food? We're *starving*." The paradox as articulated by low-income households of being able to afford certain technologies but not an adequate food supply seems revealing of the gap between the priorities of policymakers and the needs of impoverished areas both within and outside of the United States. More importantly, possessing these technologies did not seem to contribute to improvements in household food security.

These sentiments were also met by a rationality that seemed to suggest an internalization and acceptance of inequitable living conditions. As residents from ESB stated, "Todo va normal, como sube. Incluso la vida, sube todo," (*Everything is going up [in price] as normal. Including life, everything goes up*); "Fair or not fair, I don't want to move. I was born and raised in Santa Barbara and I don't plan to move, so you know, you make a choice. A candy bar versus a cake, versus a tri-tip [steak]. You just decide what you can afford,"; and from Goleta "You have no choice I guess. I mean, you have a choice but society doesn't think so. So I mean, what am I going to do? Go on strike cause I can't buy food if the price is too high?" While low-income individuals may perceive a lack of control over their circumstances and thus internalize the conditions of poverty (Bourgois 2002; Bourgois 2003), low-income, communities of color in SBC have been excluded from the traditional political process and neglected by policymakers. Instead certain community-based organizations in SBC have assumed the task of addressing social and economic disparities through social services and other welfare programs (Casa de la Raza 2010; SB PUEBLO website 2010).

Transportation and mobility

Past studies have demonstrated that travel distance, travel time, and lack of adequate transportation to food outlets strongly influence the procurement decisions of consumers (CFPA 1996; Bolen and Hecht 2003; Unger and Wooten 2006; Hawkes 2007, 2008; Ver Ploeg 2009). Food deserts are demonstrated to constrain consumers shopping decisions (Hawkes 2008). Consistent with findings from other studies on food deserts (PICHI 2002; Larson et al. 2009; Rose et al. 2009; Sparks et al. 2009; Ver Ploeg 2009), participants from the present study reported both a lack of transportation options and a lack of stores selling food. Physical proximity of outlets was a main determinant in household procurement decisions. Study participants lamented a lack of access to convenient or adequate transportation, often reliant on walking, "Llego caminando. No tengo carro," (*I get there by walking. I don't have a car*) or a spouse, "Mi esposo me lleva en carro," (*My husband takes me in the car*). Although increased walking as physical exercise has been associated with improved community health (Day 2006), when combined with limited options for food procurement, walking as a primary mode of transportation becomes a matter of social equity (Bostock 2001) and community food security (Allen 2004, 2008).

Participants from all three communities were also vulnerable to higher prices and lower quality of food as a result of fewer stores and less competition (CFSC 2002). Results of a recent national study reported that people living in low-income areas with limited access spend significantly more time traveling to a grocery store than the national average (Ver Ploeg 2009). Many residents were aware of or at least perceived disparity of food prices between outlets in the local neighborhood and big-box retailers in the valley, located about a 45-min to hour drive outside of Santa Barbara. "It's all we have near, so we have to get satisfied with [these stores]. But we would like the stores in [the valley], they are cheaper. All those like Target and Wal-Mart would be nice," (young woman from Goleta).

In terms of procurement trips per week, responses ranged from "cada quince días," (*every fifteen days*) to "casi todos los días," (*almost everyday*). Households procuring on a more frequent basis may have been consuming fresher foods, specifically produce, as compared with households procuring food less often.

Comida Rápida

In addition to affecting procurement decisions, lack of transportation options also influenced decision-making in

regards to consuming food outside of the household. Households reported eating at restaurants closest to their place of residence, most commonly fast food—as many shared a back or side yard fence with a fast food chain—when they felt financially able to do so. “Tal vez, una de mes. Solamente hamburguesa o pizza,” (*Sometimes, once a month. Only hamburgers or pizza*); “If I get coupons. Mostly the two for one.” The means for number of times dining out per week were 1.66 with a range of 0–7 (ESB), 1.97 with a range of 0–20 (Goleta), and 2 with a range of 0–20 (Carpinteria). Restaurants frequently mentioned by participants were Taco Bell, Carl’s Jr., McDonalds, Panda Express, Jack in the Box, and local pizza parlors or Mexican *taquerias*.

Policy-oriented research demonstrates how zoning and transportation must be included as dimensions of urban food security (Unger and Wooten 2006; Ver Ploeg 2009). In 2008, the city of South Central Los Angeles imposed a 1-year moratorium on incoming fast food restaurants, due to substantial evidence articulating a correlation of diets primarily consisting of fast food with chronic obesity (Cummins and Macintyre 2006; Nestle 2007; Young and Nestle 2007; California Center for Public Health Advocacy, PolicyLink et al. 2008; Crawford et al. 2008; Larson et al. 2008; Currie et al. 2009; Pearce et al. 2009). While a study from UCLA questioned whether “food insecurity is a cause, an effect, or simply associated with lower health status,” (Harrison et al. 2007: 3) obesity is still found to be more common among food-insecure households (Ver Ploeg 2009). Obesity may be a consequence of individual decision-making in a diverse food environment with healthy and unhealthy foods readily available, or a result of unbalanced food environments due to poor planning and less than rigorous zoning policies.

In addition to influencing consumption outside of the home through its ubiquity and easy accessibility, fast food has also contributed to decreased familiarity with traditional foodways and deskilling within the household through increased consumption of processed foods. Jaffe and Gertler (2006) discuss the implications of fast food for domestic food provisioning:

> Processed foods are developed to fit the same logic of standardization that is displayed in fast food restaurants. The consumer can expect a consistent product that has been engineered to cook, bake, microwave, and taste exactly the same each time (144).

Many households seemed to prefer meals requiring minimal preparation, claiming to spend “as little amount of time as possible,” (woman from ESB) and often relying on cooking technologies, “I’ll just throw everything in the microwave. You can do that when you’re single,” (woman from ESB). Procurement decisions were even influenced by the availability of processed foods from certain stores, “That’s why I like Trader Joe’s. They’ve got a lot of [microwaveable meals]. I’m not that big on cooking anyway,” (woman from ESB). One man’s comment illustrated how fast food was characterizing consumption both within and outside the home: “Me llevo comida que no tenemos preparar y ella compra su comida a McDonalds una o dos veces por semana,” (*I get food that we don’t have to prepare and [my wife] buys her meals from McDonald’s once or twice a week*).

Urban, low-income and immigrant households, particularly children, are also increasingly susceptible to advertisements for processed and fast foods (Jaffe and Gertler 2006; Nestle 2007; Anderson 2008). Study participants often rationalized the decision to consume fast food as an appeasement to younger members of the household: “If we’re gonna eat out, the kids love Taco Bell,”; “Every now and then we’ll go to McDonalds because my daughter likes chicken nuggets,”; “Nada más que comida rápida. Para los niños,” (*Nothing other than fast food. For the children mainly*). The s’Cool Food Initiative, part of a local non-profit operating in SBC, represents an effort to reverse the obesogenic trend among children through healthy school lunch reform (Initiative 2010). This effort, like other community food security projects and alternative food movements, is confronting multiple challenges at the local, institutional, and policy levels. Not only is s’Cool Food attempting to persuade schoolchildren away from eating “inside the box of the industrial food system,” (Johnston and Baker 2005), but also training foodservice employees, orchestrating local farm-to-school distribution networks, and advocating for more lenient policies by the County Public Health Department.

Local knowledge

The global-industrial food system has confounded public perceptions of what constitutes “healthy” food through mass marketing and deterioration of locally based food knowledge (Pimbert 2007). Jaffe and Gertler (2006) summarize by accusing the agro-food industry of “waging a double disinformation campaign to manipulate and to re-educate consumers while appearing to respond to consumer demand,” (143). Supermarkets serve as one vehicle for this campaign by playing a large role in shaping public perceptions of dietary health and can actually “reduce the ability of marginalized populations to purchase a high-quality diet,” (Hawkes 2008: 657). The financial capital allocated by supermarkets to implement health-related campaigns may simultaneously discount the value of locally based markets and regional foodways, particularly those disassociated from the agro-food industry.

An overall high satisfaction with the quality and selection of foods sold at the supermarket was reported by

households; only 24% of participants in ESB, 12% in Goleta, and 16% in Carpinteria voiced some level of dissatisfaction with quality and selection of foods from major corporate retailers. Positive perceptions of locally based markets were uncommon, corrupted by instances in which the food for sale underperformed nearby supermarkets. "A veces no es bueno la comida. Están pasadas de fecha," (*Sometimes the food is no good. Items are often past date*). Meanwhile, some study participants felt that they were not afforded an opinion, "Un tiene que estar satisfecho," (*One has to be satisfied*) and that expressing an opinion would not change one's purchasing power, "Pues si digo que 'no estoy satisfecha' que voy a hacer?" (*If I say 'I'm not satisfied,' what difference will it make?*)

Despite a self-proclaimed awareness of needing to consume "healthy" foods (see Table 3), several households perceived this as financially unfeasible. While an entire literature interprets the predicament of low-income households to access healthy food as a form of systematic exclusion (Phillips 2006), numerous studies have proven the success of subsidy programs and campaigns targeting increased consumption of specific "healthy" foods leading to dietary improvement among low-income consumers (Perez-Escamilla et al. 2000; Herman et al. 2006b). However, consumers may not necessarily reduce their intake of less healthy foods when they increase their consumption of healthy foods (Ver Ploeg 2009).

Coping strategies of low-income households

In responding to increased food insecurity and economic recession, study participants reported diversifying procurement, adjusting to a reduced or limited food budget, relying on food assistance, and revitalizing the home as a site of domestic food production and preparation as coping strategies.

Food production

The number of households engaging in food production either at home or in a community garden was highest in ESB (30%), second highest in Goleta (26%), and lowest in Carpinteria (24%). Examples of domestic food production included minimal cultivation of potted chilies, tomatoes or herbs, minimal management of citrus, stone fruit, or avocado trees, and more time- and labor-intensive vegetable gardens.

Considering spatial differences of the communities in this study, it is somewhat surprising that the reported incidence of domestic food production was similar for all three. While residents of ESB and Goleta possessed larger yards overall, the majority of low-income households in Carpinteria consisted of campers or mobile homes situated on concrete with no soil available nearby. Another compelling spatial difference was the presence of a neighborhood garden in ESB, an attribute missing from the neighborhoods of Goleta and Carpinteria. This difference seemed particularly important, especially in terms of policy, as many positive consequences for community health and quality of life are associated with community gardens (Irazabal and Punja 2009). Inadequate access to or space for local cultivation may be considered an issue of environmental justice (Irazabal and Punja 2009). Heynen et al. (2006) deem such "unevenness of urban green space," including the lack of community gardens, "as a result of the political ecology of property relations within capitalist societies and its differential treatment of racial and ethnic groups," (20). Yet the presence of a community garden does not always yield to increased local food production. For instance, the history of the Santa Barbara community gardens is somewhat fragmented and characterized by a series of management problems. After some years under lenient stewardship by a local non-profit, the gardens were granted to the City Department of Parks and Recreation. Marking this transition was a demand to establish firm restrictions to "reclaim" the gardens for broader community use. To facilitate reclamation, city authorities established Conditions for Use and Guidelines for Authorized Plants, installed fencing around garden perimeters requiring lock and key entry, and hired part-time garden managers. While these changes enhanced community participation from what it was previously in ESB, many plots to this day remain unoccupied. Underutilization of the gardens by community residents has perplexed concerned parties that consider local food production a worthwhile strategy for household food security.[1]

The potential of community gardens to enhance local food security may be limited if participation of community members goes unsolicited through the processes of planning, design, and management. As Ostrom et al. (1999) argue, "users need some autonomy to make and enforce their own rules… they must highly value the future sustainability of the resource," (279). Not including community members in the decision-making process may be considered just as much an issue of environmental justice as the very absence of a community garden. Irazabal and Punja (2009) articulate:

> Environmental justice insists that those who are most affected by the environmental decisions should have a central voice in the regulatory process. Thus, there is a heavy emphasis on community participation, neighborhood autonomy, and democratic decision-making (7).

Yet the question is how to navigate the political decision-making process that systematically excludes or

[1] There is an annual fee for garden plots, however alternative payment options are available.

Table 3 Participant responses

Eating "Healthy" foods	Food assistance	Searching for sales	Traveling farther in search of lower prices	Price comparisons
"Le coman bien porque en veces para provenir las anemias, porque si no come bien se enferma," (*People eat well to prevent health problems, because they get sick if they don't*); "No sabemos comer como debemos de comer. Yo he tratado últimamente si, fruta, verduras, a comer unas comidas que más sabrosa. Pero, si últimamente hemos tratado de eliminar lo que no es bueno para nosotros," (*We don't know how to eat as we should. I've finally tried, fruit, vegetables, to eat nutritious foods. We have tried to eliminate that which is not good for us*); "A veces es de cómo que no tengo mucha de una verdura. Yo pienso que si es bueno de verdad, que si esta bien," (*Sometimes I don't have more than one vegetable [serving]. I wonder if that is alright*); "I would love to change my eating habits. We should eat healthier. I'd rather not have the chips, but I buy the chips. When I don't have chips, you go craving for it."	"We have a neighborhood organization. Uh, the Franklin neighborhood association I think it's called," (woman from ESB); "A veces vamos aquí los jueves aquí en la frente los traen como legumbres y como verduras. En frente de school," (*Sometimes we go here Thursdays, here in front they bring legumes and some vegetables. In front of school*) (woman from ESB); "Like the community center. Es aquí. Es enfrente. El nombre no creo," (Like the community center. *It's here. It's in front. I don't know the name*) (woman from Goleta); "No se como se llama. Reglaran comida por aquí en la escuela. Enfrente de Wendy's," (*I don't know what it's called. They'll give food here in the school. In front of Wendy's*) (woman from Goleta) "El WIC, cuando eran chiquitos," (*We used WIC, when my children were young*) (woman from Goleta); "Cuando tenia mis chiquitos pero hace mucho tiempo," (*When I my children were very young, but that was a long time ago*) (woman from Goleta); "Cuando estaban chiquitos ellos si. Pero no desde que tenían tres anos," (*When the children were little, yes we used WIC. But not since they were three years old*) (woman from Carpinteria)	"Whatever is cheaper. Que den especiales," (*Whichever offers specials*) (ESB); "Donde encuentro que están mas baratas, lo traigo," (*[I go] where I can find the cheapest food*) (ESB); "Leo el periódico por los especiales," (*I read the newspaper for offers*) (ESB); "It just depends. I guess on the sales," (ESB); "Pretty much anywhere we can find specials," (Goleta); "We don't have much money out here, so you're looking for deals," (Goleta); "For people who don't make as much I'm sure they have trouble. If I'm not satisfied, I go to the other stores," (Goleta); "Pues, hay días especiales," (*Well, on days there are specials [I buy food]*) (Goleta); "Hay muchas especiales a ver," (*There are many specials to find*) (Carpinteria); "Everything I get I try to buy on sale rather than paying full price," (Carpinteria).	"I go to Food for Less. It takes me 45 min, because it's in Oxnard," (Goleta); "De vez en cuando, voy a Los Angeles y compro mas dura para comida," (*Once in a while I go to Los Angeles to get more food for my back*) (Carpintería); "Farmer's market is not that fresh. I go to Oxnard to get my vegetables, because Oxnard is loaded with agriculture," (Carpinteria); "Here is quite expensive. We travel a lot up north in northern California. It's cheaper, better quality," (Carpinteria); "From Oxnard yea, but not from the [stores] in this area. Pretty much everything is expensive here. That's why you go out of town," (Carpinteria).	"Compro como en la Chapala para comprar carne porque es mas económico," (*I go to Chapala [market] to buy meat because it's cheaper there*) (ESB); "She goes from one store to the other to see if there's any sales," (Carpinteria); "[Las verduras] son mas económicas en el swap meet. Son mas caras en la Vons y Albertsons," (*Vegetables are cheaper at the Swap Meet. They are more expensive at Vons and Albertsons*) (Carpinteria).

disadvantages low-income households and communities of color (Pulido 2000; Heynen et al. 2006; Irazabal and Punja 2009).

Despite different spatial arrangements among research sites, the prospect of food production was perceived in one of three ways by households not growing food. Firstly,

some households did not perceive enough space to cultivate food for domestic uses:

> "No hay espacio para plantar," (*I have no space to plant*) (ESB);
> "No tenemos espacio," (*We don't have space*) (Goleta);
> "No tengo jardín," (*I don't have a yard*) (Goleta);
> "I wish we had more room. We've got just a little yard," (Goleta);
> "No tengo lugar," (*I don't have a place for it*) (Carpinteria).

In addition to spatial constraints, some households perceived time or constraints or did not perceive any direct benefits from growing food.

Food assistance

Public sources

Government food assistance, as for much of the state of California (CFPA 2003), is highly underutilized in SBC. Federal food assistance programs have been extremely underutilized by eligible county residents. As of 2009, only 20,089 participants were enrolled in the food stamp program (California Department of Social Services) meanwhile another 36,353 non-participants were income-eligible (CFPA 2010). California ranks at the bottom of the list for food stamp participation (Cunnyngham et al. 2008). Shimada (2009) notes how underutilization actually harms state and local economies as well as low-income Californians. In addition to providing benefits to those in need, he argues that increased food stamp participation provides a means of "bolstering economic activity," and would be particularly advantageous in dealing with California's economic recession. Statistical analyses have demonstrated that every dollar in federal food stamp expenditures generates $1.84 in economic activity (Hanson and Golan 2006). Given full participation in the federal food stamp program, SBC could receive $58,735,137 in additional benefits and generate an additional $108,072,653 in economic activity (Shimada 2009).

Compared with enrollment in other California counties, SBC ranks relatively low at 44th out of 58 (CFPA 2010). In fiscal year 2007–2008, the county helped an estimated 7,750 families with nutrition assistance each month (County of Santa Barbara 2008). Data on use of the Women, Infants, and Children (WIC) Program is scarce. While 18,287 participated in WIC in 2008 (California Department of Health Services, WIC Program) (CFPA 2010), there is not enough data available to estimate what percentage out of the total eligible is accounted for by this number. Households that reported past enrollment in the Women, Infants and Children program did not pursue any other food assistance once their children had reached the maximum age (see Table 3). It was unclear what circumstances were preventing these women from seeking further food assistance. It is possible that they did not perceive a need or they were unaware of other options.

Studies have found positive correlations between being Latina or a woman of Hispanic origin to low enrollment in public food assistance (Kaiser 2008). While low enrollment among immigrant Latino groups and particularly Latinas has been attributed to potential stigmas associated with participation and the risk of becoming a "public charge"—the latter of which may consequently affect eligibility for permanent resident status and ultimately citizenship—the USDA emphasized in early 2010 that receiving a "public benefit" in the form of nutrition assistance is acceptable and does not make an individual a public charge. Other potential explanations for under-enrollment include lack of formal publicity of programs, previous rejection or failed attempt in receiving food assistance, and possibly disorganization within the programs themselves (Poppendieck 1997). Similarly, some households complained that the farmers' market was not accepting federal food vouchers, when in fact the Santa Barbara Farmer's Market Association began accepting food stamps in paper form over a decade ago and has been accepting food stamps electronically for the past 5 years (personal communication with SBFMA manager 6/9/09). Low visibility of programs and lack of transparency may perpetuate feelings of discomfort or shame that are common for those enrolling in a program or redeeming federal food vouchers and may explain underutilization of both federal and local programs.

Among ESB, Goleta, and Carpintera, 12, 26, and 28%, respectively, were utilizing some form of food assistance (federal, local, or both). These figures, excluding ESB, were reasonably consistent with results from the California Food Policy Advocates which reported 28% enrollment among food-insecure households for Santa Barbara County (Manalo-LeClair 2004). One reason for the comparatively low percentage of households from ESB reporting enrollment in food assistance programs may have been due to the greater number of men that were surveyed from this community. Since in most instances women were in charge of household food procurement, men may have been unaware of sources of food. Additionally, women may have chosen not to disclose procurement decisions to others in the household.

Private sources

In general, households did not indicate an increased use of food assistance since the economic recession, although in early 2009 many SBC agencies had reported increased food donations for 10–50% more people than just a few

months prior, partially due to the influx of non-traditional clients seeking aid (SBFB 2009). Yet this increased demand is not matched by adequate food resources; corporate donations have curtailed as surplus is redirected to cheap box stores, overseas markets (Young 2008). Several households from this study mentioned "cheap box stores", such as Food 4 Less and Smart and Final as primary sources for food procurement.

Of households reporting enrollment in food assistance programs, local programs were rarely mentioned. Although local programs were situated within walking distance of households in both ESB and Goleta, these programs seemed unrecognizable or unfamiliar to most of the community. Even for households utilizing some form of local food assistance, only few could reference the programs or welfare entity by name; most described the program by its location (see Table 3). In general, responses from participants suggested a lack of or failed publicity by local programs.

Bargain procurement

Many households monitored the price of food through bargain shopping, i.e., searching for sales or redeeming coupons, traveling farther in search of lower prices, and conducting price comparisons (see Table 3). As one participant from ESB explained, "Pues depende, depende, Scolari's, Ralphs, Vons, depende. No necesariamente son las sola," (*Well it depends, depends. Scolari's, Ralphs, Vons, it depends. There isn't necessarily just one [store from where I get food]*). Households that procured from a single source may have been more vulnerable to food insecurity than households that diversified procurement through price-competitive selection from a variety of stores: 23% of total households relied on a single source, 36% were procuring from two sources, and 41% were procuring from three or more sources. Many households reported travelling outside of the county as far as Oxnard, Ventura, and Los Angeles to purchase cheaper food and some demonstrated knowledge of price comparisons for particular items at different stores. While the *actual* price difference of food from stores situated within SBC versus stores located in neighboring counties could not be confirmed, the potential inconvenience and orchestration required to shop outside the county seems to suffice as evidence of significant price differences.

Revitalizing at-home food preparation

While previous research has demonstrated the relatively less time low-income households devote to food preparation (Mancino and Newman 2007), households from this study seemed to have resorted to preparing more meals at home since the economic crisis: "I'm cooking a lot more than I used to," (woman from ESB); "Now I prepare all my meals at home,"(man from Goleta); "Trato de cocinar más," (*I'm trying to cook more often*) (woman from Carpinteria); "I used to [eat out] everyday. I'm trying to change my eating habits. So over the last 2 or 3 months, I go once a week maybe," (woman from Goleta). Comparisons on the frequency of meals prepared at home among the three communities are presented in Table 4.

Table 4 Meals prepared at home per week (expressed as % of households)

	Eastside downtown	Goleta	Carpinteria
All	32	54	60
Most	46	24	18
Some	12	12	10
Few	10	8	12
None	0	2	0

However, meals prepared at home did not necessarily translate to improved nutrition and food security. Many food-insecure households alluded to the repetition of foodstuffs, "We might be having rice and top ramen for the fourth day in a row, but it's something," (woman from Goleta); "Pues comemos frijoles," (*Well we eat [refried] beans [frequently]*) (woman from Carpinteria); "Lo que más consumamos son los frijoles. Carne muy poco. Siempre hay tortillas," (*What we eat most are beans. Very little meat. And there are always tortillas*) (woman from Carpinteria); and to reliance on "uncooked" meals, "I just had some rice krispies and a banana. Is that a meal? I hate to cook. I hate it," (woman from Carpinteria).

In some instances, refocusing and revitalizing the home kitchen as a place of production rather than consumption (Jaffe and Gertler 2006) may have the potential to increase awareness of consequences for health associated with diet. Victory gardens, which aim to enhance local food production in times of depleted food resources (Revive Victory Garden 2009), perhaps need coupling with the realm of food preparation to create "victory kitchens." Community-based campaigns targeting low-income populations in California, such as the Latino-focused Champions for Change, provide educational materials on nutrition and health and promote reskilling through at-home meal preparation.

Gendered repercussions of economic recession and food insecurity

As referenced in the introduction, another aim of this study was to investigate gender-specific repercussions of economic recession and food insecurity. While women's power and self-identity may reside with the ability to feed

families, such food work may re-inscribe gender roles and perpetuate the subordination of women (McIntosh and Zey 1998; Allen and Sachs 2007). Results from this study suggest that low-income women suffer from social and economic stressors related to household food insecurity that translate to negative consequences for physical and psychological well-being.

Procurement, preparation and the real (gendered) cost of food

In fulfilling productive and reproductive roles, low-income women balance time commitments (employment, child care, cleaning, cooking) with financial commitments (gas, food, rent), often to the detriment of their physiological and psychological well-being. Critiques of the global-industrial food system often allude to the "real" cost of food (Allen 2004; Imhoff 2007; Nestle 2007), with consideration of the social and environmental externalities that are unapparent in the retail cost of food to consumers. Results of this study suggest that the physiological and psychological costs for women in managing household food security represent additional externalities that should also be considered in a "real" (gendered) cost of food.

Women from this study were observed as acting gatekeepers of food procurement and preparation for the majority of low-income households, evidenced by the incompleteness of knowledge in regards to these activities (i.e., shopping trips per week, preparation time per meal, and sources of food) by other household members. However, women's management of household food procurement and preparation was compromised by both a lack of sufficient resources and abundant availability of processed and fast foods.

Women's management of household food security was constrained by a number of factors, including transportation, time, and financial resources. Women were often without cars and relied on walking or shared rides to the store. As many women were working multiple part-time jobs, labor- and time-saving techniques and *comida rápida* seemed to become preferred alternatives to cooking meals-from-scratch. Jaffe and Gertler (2006) discuss how "Deskilling is presented as positive condition since families pressed for time can be happy as they reach for the convenience of a prepared or "cook by numbers" meal," (154) but that this change implies "a significant gender dimension, as it is the autonomy of those primarily responsible for purchasing and preparing foodstuffs that has been systematically undermined," (143).

Female study participants reported higher levels of perceived household food insecurity than males (see Table 5). Overall lower levels of perceived food insecurity among males was interpreted as indicative of less stress from lack of involvement in household food procurement, and overall higher levels of perceived food insecurity among females as indicative of more stress associated with procurement, preparation, and allocation duties. These higher levels of stress, perhaps due to "the relentless mental and caring labor" of food work (DeVault 1991; Allen and Sachs 2007) were framed by women in both physiological and psychological terms and corresponded to balancing multiple responsibilities. Of course, these findings may speak beyond levels of stress; women who are single heads of households are consistently found in national surveys among the most at risk for food insecurity (Nord et al. 2009).

Balancing multiple jobs and expenses

Barndt (1999) argues that the global-industrial food system expects women to assume "double-duty household tasks before and after," (164) a day's labor. Similarly, Allen and Sachs (2007) discuss gender roles within the material and socio-cultural domains, i.e., the productive (public) and the reproductive (private), and how the latter does not compensate for the "long, often unrecognized hours" women invest in household food provisioning. The three most common occupations that women aligned with in this study were *casa limpias* (housekeeping), janitorial services, and *campo* or *nurseria* (farm and nursery labor). These jobs were usually *trabajo temporal* (part-time) and represented only one of many "labors" that women endured on a daily basis. As a woman from ESB explained, "Tengo que llevar los niños a escuela, trabajar, limpiar la casa," (*I have to take the kids to school, work, clean the house…*).

Women lamented the inflation of food and fuel prices in recent months and discussed coping strategies for balancing expenses. Women seemed extremely preoccupied with the price of food, as one woman from Goleta explained, "If I ever hit the lottery, my quote in the paper will be: 'now I don't have

Table 5 Perceptions of food insecurity (FI) among males and females (expressed as %)

	Eastside downtown		Goleta		Carpinteria		Total	
	M	F	M	F	M	F	M	F
Mild FI	20	60	42	39	54	51	35	49
Moderate FI	8	12	16	26	8	19	10.5	19
Severe FI	8	12	0	10	8	8	5	10
No FI	64	16	42	25	30	22	49.5	22

Women, N = 93; Men, N = 57

to worry about the cost of food!" Participants linked rising fuel prices to food in a number of ways; one woman with a car explained that she was frequenting the grocery store fewer times per week and by walking instead of driving, "Para no gasta tanta gas, en camino [al mercado]. Para allá no ir otra vez y gastar gas," (*I walk in order to save gas. I don't go [to the store] again so that I can save gas*), as another woman alluded to how certain price increases implicated financial trade-offs for the household food budget, "Ahorita la gasolina! En los dos meses pasados o un mes, dos gallones me cobran unos diez dólares. Más caro que la leche," (*The gas right now! In the past month or two, two gallons costs me ten dollars. Gas is more expensive than milk*). Juggling between different productive and reproductive responsibilities seemed to afford few opportunities for obtaining meals; many women reported regularly skipping meals, "Pues a veces estoy trabajando y no tengo tiempo para comer," (*Well sometimes I'm working and I don't have time to eat*), or as another woman remarked sarcastically, the struggle to balance her workload and expenses served as a regimen for weight-loss, "Between rent and gas and working full time, literally [I] have no problem losing weight."

In provisioning food for others, women admitted to compromising their own nutrition and even reported instances of food deprivation:

> "I buy blueberries for my son, but I don't eat them because they're too costly,";
> "I worry for [my children's] health. I give them more food than I give myself,";
> "Pero mi hijo si come bien. Yo sometimes no," (*My son eats well. Sometimes I don't*).

Similar sentiments were expressed elsewhere by women, suggesting a gendered obligation in ensuring the health of children and an inverse relationship of children's nutritional status to that of women. In discussing gendered dimensions of the "corporeal domain", Allen and Sachs (2007) allude to the paradox of women ignoring their own nutritional needs while fulfilling "the primary responsibility [of] feeding others" (10). This inverse relationship is perhaps one consequence of a food system that relies on the structural oppression of women. Future research, particularly policy-oriented, should address the questionable sustainability of a system that does not provide adequate monetary or caloric compensation to women for their role in food provisioning.

Conclusion

Everyday realities encountered by low-income urban populations in the US are bundled with other unfavorable social, economic, environmental, and political circumstances that contribute to an overall feeling of helplessness and vulnerability. The diversity of narratives provided by low-income households reflects a form of citizenship that appears compromised by a host of variables perceived to exist outside the realm of local control. Many of these variables—food prices, fuel prices, employment, corporate fast food and supermarkets—are determined by the global economy, revealing of the comparatively minimal reach of the state. Policy-oriented responses to food insecurity that incorporate the structural insecurities and structural oppression of the global food economy fail to uphold people (particularly women) as citizens and food as sustenance, instead reinforcing people as consumers and food as commodity.

The results of this study suggest a number of areas that demand further research: adverse changes in family and household dynamics resulting from increased food insecurity; the potential for mobile markets, such as farmers' markets and community-supported agriculture geared toward low-income people as alternative models to and in the absence of corporate food retailers (Allen 2008); the driving forces for underutilization of gardens in low-income areas and the desirability among low-income households to grow food, as growing food at the local level has been demonstrated as both an economically and symbolically powerful act (UNDP 1996; McKenna et al. 1999; Hovorka and Smith 2006; Revive Victory Garden 2009); the impact of and potential for community and/or household kitchens as sites of nutrition- and health-pertinent education. Also, collecting life histories or personal narratives that document past to present experience with food insecurity may help explain the behavioral changes associated with discontinued use or underutilization of food assistance, community gardens or gardening more generally, and involvement in local food initiatives.

Food sovereignty, by definition, recognizes all human beings, "as agents and actors [rather than] merely consumers in the food system," (Spieldoch 2007: 12) with increased emphasis on women. Cultivating food sovereignty, or even ensuring food security, requires some degree of "de-linking" from the global-industrial food system (Wekerle 2004). Examples include the emergence of more robust regional food systems, community-based food assistance programs or food projects, food policy councils, urban agriculture, and farmers markets. De-linking strategies set what Appadurai (2001) labels as "precedents" for eliciting policy change. For marginalized communities in large urban centers, these "precedents," serve as "instruments of deep democracy" allowing for governance by and within local communities (Appadurai 2001). Furthermore, these precedents challenge:

> liberal understandings in which citizenship is viewed as a set of rights and responsibilities granted by the

> state. Instead, citizenship in the context of locally-determined food systems is claimed, and rights are realized, through the agency and actions of people themselves. Local organizations and federations are thus increasingly becoming expressions of an emergent citizenship in the governance of food systems (Pimbert 2008: 48).

The coping strategies employed by low-income households from this study do not necessarily qualify as "de-linking", as many of these were restricted to and operated within the global-industrial food paradigm. The case of South Santa Barbara County seems to illustrate the current lack of food sovereignty in low-income, peri-urban and urban contexts in the United States.

While some so-called "de-linking" strategies indeed are in effect in SBC, local food system governance will require more participation by those most impacted by food insecurity, specifically low-income groups. An interesting example of a de-linking effort is the Santa Barbara chapter of Food Not Lawns, a grassroots group whose mission is to grow and share more food through community food exchanges. The group has reported a dramatic increase in the number of exchanges during the past year, but involvement has been mostly among wealthier, middle- to upper-income Anglos and thus decoupled from problems with food insecurity, which appear most frequently among the Latino population (and, interestingly, reciprocity of foodstuffs is a common cultural practice among Latinos). The looming question is how efforts like Food Not Lawns may include other socio-economic and cultural groups, or as Johnston and Baker (2005) propose "scale out to include a greater number of households and communities" (315). Achieving food sovereignty and "scaling out" in these more urban contexts requires "a network of diverse retail markets, which will work as bridges between people and food, links between those who produce it and those who consume it," (Via Campesina 2009). Other efforts are already underway to facilitate a more direct connection between the low-income communities of SBC and local farmers such as the gleaning program Backyard Bounty, the inaugural Santa Barbara Sol Food Festival, and the recently formed SBC Food Policy Council.

Finally, another question that needs to be addressed by future research and policymakers is regarding the consequences of other potential vulnerabilities, such as from risks associated with climate change, for food insecurity. Santa Barbara is part of the wildfire-prone ecosystem of southern California. Climate change is likely to increase the frequency and intensity of fires, as within the past 2 years alone, three major fires destroyed thousands of acres, including hundreds of homes and agricultural land, and forced evacuation of tens of thousands of residents. Being a mountainous region along the coastline also renders Santa Barbara prone to landslides. Major freeways running along the coastline connect Santa Barbara to the rest of California, north and south. Several years ago in the midst of a winter storm, a devastating landslide blocked freeway access, interrupting access to major food distribution channels. Research and county planning will not only have to consider the implications of climate change for Santa Barbara County's lucrative agricultural sector but also for the food security of county residents.

Participatory planning and dynamic decision-making, perhaps in the form of scenarios, will certainly be essential to the process of designing for the food security and sovereignty of the county long-term, as "Policy-makers will need to develop not an appreciation of easy-to-sample 'food preferences', but an understanding of local perceptions as socially constructed, contested, and negotiated," (Pottier 1999; 16). When asked regarding community-based projects to enhance the local food supply, 58% of study participants from ESB, 76% from Goleta, and 62% from Carpinteria reported interest and willingness to participate. This response seems significant in considering the desire of food-insecure households to participate in planning for more food-equitable, healthier communities and in cultivating more sustainable food systems. Despite feelings of helplessness expressed by the same participants, compounding crises of food insecurity and economic recession had not completely hindered optimism toward a more promising and bountiful food future.

Acknowledgments This study emerged as a pilot for doctoral research in socio-cultural anthropology at UCSB. I would like to thank Jessie Fidler, Emily Terrill and Laura Cabrera from UCSB for their dedication and commitment as research assistants. I would also like to thank my research advisors Drs. Susan Stonich, David Cleveland, Emiko Saldivar-Tanaka, and Casey Walsh for their support during this study and the Institute of Research for Labor and Employment at UCLA for partial funding of this study.

References

Allen, P. 2004. *Together at the table: Sustainability and sustenance in the American agrifood system*. University Park: Penn State University Press.

Allen, P. 2007. The disappearance of hunger in America. *Gastronomica* 7(3): 19–23.

Allen, P. 2008. Mining for justice in the food system: perceptions, practices, and possibilities. *Agriculture and Human Values* 25: 157–161.

Allen, P., and C. Sachs. 2007. Women and food chains: The gendered politics of food. *International Journal of Sociology of Food and Agriculture* 15(1): 1–23.

Anderson, M. 2008. Rights-based food systems and the goals of food systems reform. *Agriculture and Human Values* 25: 593–608.

Appadurai, A. 2001. Deep democracy: Urban governmentality and the horizon of politics. *Environment and Urbanization* 13(2): 23–43.

Barndt, D. 1999. Women in the NAFTA food chain. For Hunger-Proof Cities, ed. M. Koc, R. MacRae, L. Mougeot and J. Walsh, 162–166. Ottawa: International Development Research Centre.

Bernard, R. 2006. *Research methods in anthropology: Qualitative and quantitative approaches*. Oxford: Altamira Press.

BLS. 2009. Local Area Unemployment Statistics. 2009, from http://www.bls.gov/lau/.

Blumberg, S.J., K. Bialostosky, et al. 1999. The effectiveness of a short form of the household food security scale. *American Journal of Public Health* 89(8): 1231–1234.

Bolen, E., and K. Hecht. 2003. *Neighborhood groceries: New access to healthy food in low-income communities*. Oakland: California Food Policy Advocates.

Bostock, L. 2001. Pathways of disadvantage? Walking as a mode of transport among low-income mothers. *Health & Social Care in the Community* 9(1): 11–18.

Bourgois, P. 2002. Understanding inner city poverty: Resistance and self-destruction under US Apartheid. In *Exotic no more: Anthropology on the front lines*, ed. J. MacClancy, 15–32. Chicago: University of Chicago Press.

Bourgois, P. 2003. Crack and the political economy of social suffering. *Addiction Research and Theory* 11(1): 31–37.

Burns, M. 2004a. *The plight of the cloud people*. Santa Barbara, CA: Santa Barbara News Press.

Burns, M. 2004b. *The price of corn*. Santa Barbara, CA: Santa Barbara News Press.

California Center for Public Health Advocacy, PolicyLink, UCLA Center for Health Policy Research. 2008. *Designed for disease: The link between local food environments and obesity and diabetes*.

Camarillo, A. 1979. *Chicanos in a changing society: From Mexican Pueblos to American Barrios in Santa Barbara and Southern California, 1848–1930*. Dallas: Southern Methodist University Press.

Cammarota, J. 2008. *Suenos Americanos: Barrio youth negotiating social and cultural identities*. Tucson: University of Arizona Press.

Casa de la Raza. 2010. Casa de la Raza. from http://www.lacasadelaraza.org/.

Census U. S. B. o. t. 2008. State and County Facts. from http://www.census.gov/.

CFPA. 1996. *Improving access to food in low-income communities: An investigation of three Bay Area neighborhoods*. San Francisco: California Food Policy Advocates.

CFPA. 2002. *Santa Barbara County: A profile of poverty, hunger and food assistance*. San Francisco: California Food Policy Advocates.

CFPA. 2003. *Touched by hunger: A County by County Report on Hunger and Food Insecurity in California*. Oakland: California Food Policy Advocates.

CFPA. 2010. *2010 Santa Barbara County Nutrition and Food Insecurity Profile*. Oakland: California Food Policy Advocates.

CFSC. 2002. *Weaving the food web*. Community Food Security Coalition: Venice, CA.

CHIS. 2007. California Health Interview Survey. Retrieved June 1, 2011 from http://www.chis.ucla.edu.

County of Santa Barbara. 2008. County Statistical Profile. from http://www.countyofsb.org/ceo/budgetresearch/documents/budget0809/200%2008-09%20Section%20B%20County%20Statistical.pdf.

Crawford, D., A. Timperio, et al. 2008. Neighbourhood fast food outlets and obesity in children and adults: The CLAN study. *International Journal of Pediatric Obesity* 3(4): 249–256.

Cummins, S., and S. Macintyre. 2006. Food environments and obesity—Neighborhood or nation? *International Journal of Epidemiology* 35: 100–104.

Cunnyngham, K., L. Castner, et al. 2008. *Reaching those in need: State food stamp participation rates in 2006. I.* Mathematica Policy Research: United States Department of Agriculture Food and Nutrition Service.

Currie, J., and S. DellaVigna, et al. 2009. *The effect of fast food restaurants on obesity*. Working Paper No. 14721, National Bureau of Economic Research.

Day, K. 2006. Active living and social justice—Planning for physical activity in low-income, black and Latino communities. *Journal of the American Planning Association* 72(1): 88–99.

DeVault, M. 1991. *Feeding the family: The social organization of caring as gendered work*. Chicago, IL: University of Chicago Press.

FAO. 2003. *Trade reforms and food security: Conceptualizing the linkages*. Rome: FAO.

FAO. 2009. *The state of agricultural commodity markets: High food prices and the food crisis—Experiences and lessons learned*. Rome: FAO.

Gladwin, C.H., A.M. Thomson, et al. 2001. Addressing food security in Africa via multiple livelihood strategies of women farmers. *Food Policy* 26(2): 177–207.

HACSB. 2010. Housing Authority of the County of Santa Barbara. from http://www.hasbarco.org/index.htm.

Hanson, K., and E. Golan 2006. *Effects of changes in food stamp expenditures across the U.S. economy*. United States Department of Agriculture Economic Research Service: Food Assistance and Nutrition Research Report Number 26–6.

Harrison, G., M. Sharp, et al. 2007. *Food security among California's low-income adults improves, but most severely affected do not share in improvement. UCLA Health Policy Research Brief*. Los Angeles: UCLA.

Hawkes, C. 2007. Globalization and the nutrition transition: A case study. In *Food policy for developing countries: The role of government in the global food system*, ed. P. Pinstrup-Anderson, and F. Cheng. New York: Cornell.

Hawkes, C. 2008. Dietary implications of supermarket development: A global perspective. *Development Policy Review* 26(6): 657–692.

Herman, D., G. Harrison, et al. 2006a. Choices made by low-income women provided with an economic supplement for fresh fruit and vegetable purchase. *Journal of the American Dietetic Association* 106: 740–744.

Herman, D.R., G.G. Harrison, et al. 2006b. Choices made by low-income women provided with an economic supplement for fresh fruit and vegetable purchase. *Journal of the American Dietetic Association* 106(5): 740–744.

Heynen, N., H. Perkins, et al. 2006. The political ecology of uneven urban green space: The impact of political economy on race and ethnicity in producing environmental inequality in Milwaukee. *Urban Affairs Review* 42(1): 3–25.

Hoppe, R., J. MacDonald, et al. 2010. Small farms in the United States: Persistence under pressure. Economic Research Service, United States Department of Agriculture. Economic Information Bulletin No. (EIB-63).

Hovorka, A., and D. Smith. 2006. Gendering the urban agriculture agenda. In *Cities farming for the future: Urban agriculture for green and productive cities*, ed. R. van Veenhuizen. Ottawa, Canada: The International Development Research Centre.

Imhoff, D. 2007. *Food fight: The citizen's guide to a food and farm bill*. Berkeley: University of California Press.

Initiative, S. C. F. 2010. s'Cool Food Initiative. from http://www.scoolfood.org/welcome/index.cfm.

Irazabal, C., and R. Farhat. 2008. Latino communities in the United States: Place-making in the pre-world war II, post war, and contemporary city. *Journal of Planning Literature* 22(3): 207–228.

Irazabal, C., and A. Punja. 2009. Cultivating just planning and legal institutions: A critical assessment of the South Central Farm struggle in Los Angeles. *Journal of Urban Affairs* 31(1): 1–23.

Jaffe, J., and M. Gertler. 2006. Victual vicissitudes: Consumer deskilling and the (gendered) transformation of food systems. *Agriculture and Human Values* 23: 143–162.

Johnston, J., and L. Baker. 2005. Eating outside the box: FoodShare's good food box and the challenge of scale. *Agriculture and Human Values* 22(3): 313–325.

Kaiser, L. 2008. Why do low-income women not use food stamps? Findings from the California Women's Health Survey. *Public Health Nutrition* 11(12): 1288–1295.

Katz, S. 2009. The world food crisis and the exacerbating effects of commodity market speculation. Society for Applied Anthropology Annual Meeting. Santa Fe, NM, Conference Paper.

LACDH. 2007. *Health indicators for women in Los Angeles County: Highlighting disparities by ethnicity and insurance status*. Los Angeles: Los Angeles County Department of Health.

Larson, N., M. Story, et al. 2008. *Restaurant realities: Inequalities in access to healthy restaurant choices*. Healthy Eating Research, a National Program of the Robert Wood Johnson Foundation. Princeton, NJ. Available at: http://www.healthyeatingresearch.org/images/stories/her_research_briefs/her%20restaurant%20realities_7-2008.pdf </images/stories/her_research_briefs/her%20restaurant%20realities_7-2008.pdf>.

Larson, N., M. Story, et al. 2009. Neighborhood environments: Disparities in access to healthy foods in the US. *American Journal of Preventive Medicine* 36(1): 74–81.

Li Ching, L. 2008. *Overhaul of agriculture systems needed*. The Oakland Institute, from www.oaklandinstitute.org.

Life Sciences Research Office. 1990. Core indicators of nutritional status for difficult-to-sample populations. *Journal of Nutrition* 120(suppl): 1559–1600.

Loyn, D. 2008. World wakes up to food challenge. Retrieved June 15, 2009, from http://news.bbc.co.uk/2/hi/business/7672536.stm.

Manalo-LeClair, G. 2004. *Santa Barbara County nutrition profile*. Santa Barbara: California Food Policy Advocates.

Mancino, L., and C. Newman. 2007. Who has time to cook? How family resources influence food preparation. Economic Research Report No. 40, US Department of Agriculture, Economic Research Service.

McIntosh, W., and M. Zey. 1998. Women as gatekeepers of food consumption: A sociological critique. In *Food, gender: Identity, power*, ed. C. Counihan, and S. Kaplan, 125–144. Amsterdam, The Netherlands: Harwood Academic Publishers.

McKenna, M., M. Roche, et al. 1999. H. J. Heinz and global gardens: creating quality, leveraging localities. *International Journal of Sociology of Agriculture and Food* 8: 35–51.

Murray, W.E. 2001. The second wave of globalisation and agrarian change in the Pacific Islands. *Journal of Rural Studies* 17(2): 135–148.

NBER (National Bureau of Economic Research). (2008). *Determination of the December 2007 Peak in Economic Activity*. from http://www.nber.org/cycles/dec2008.html.

Nestle, M. 2007. *Food politics*. Berkeley: University of California Press.

Nord, M., M. Andrews, et al. 2009. Household Food Security in the United States, 2008. Economic Research Report, United States Department of Agriculture, Economic Research Service.

Ostrom, E., J. Burger, et al. 1999. Revisiting the commons: Local lessons, global challenges. *Science* 284: 278–282.

Pearce, J., R. Hiscock, et al. 2009. A national study of the association between neighbhourhood access to fast-food outlets and the diet and weight of local residents. *Health Place* 15(1): 193–197.

Perez-Escamilla, R., D. Himmelgreen, et al. 2000. Marketing nutrition among urban Latinos: The Salud campaign. *Journal of the American Dietetic Association* 100(6): 698–701.

Phillips, L. 2006. Food and globalization. *Annual Review of Anthropology* 35: 37–57.

PICHI. 2002. *Nutrition policy profiles: Supermarket access in low-income communities*. Prevention Institute for the Center for Health Improvement.

Pimbert, M. 2007. *Transforming knowledge and ways of knowing for food sovereignty*. International Institute for Environment and Development.

Pimbert, M. 2008. *Towards food sovereignty: Reclaiming autonomous food systems*. International Institute for Environment and Development.

Poppendieck, J. 1997. The USA: Hunger in the land of plenty. In *First world hunger*, ed. G. Riches, 134–164. New York: St. Martin's Press.

Pothukuchi, K. 2004. Community food assessment: A first step in planning for community food security. *Journal of Planning Education and Research* 23: 356–377.

Pothukuchi, K. 2007. *Building community food security: Lessons from community food projects, 1999–2003*. Los Angeles: Community Food Security Coalition.

Pothukuchi, K., H. Joseph, et al. 2002. *What's cooking in your food system: A guide to community food assessment*. Los Angeles: Community Food Security Coalition.

Pritchard, B., and D. Burch. 2003. *Agri-food globalization in perspective: International restructuring in the processing tomato industry*. Aldershot, UK: Ashgate.

Pulido, L. 2000. Rethinking environmental racism: White privilege and urban development in Southern California. *Annals of the Association of American Geographers* 90(1): 12–40.

Rae, I. 2008. *Women and the right to food: International law and state practice*. Rome: Food and Agriculture Organization.

Revive Victory Garden. 2009. Revive the Victory Garden: Think Global, Grow Local. 2009, from http://www.revivevictorygarden.org/.

Rose, D., J. Bodor, et al. 2009. Deserts in New Orleans? Illustrations of Urban Food Access and Implications for Policy, National Poverty Center Working Paper.

Ruelas, V. 2004. *Food insecurity*. Los Angeles: County of Los Angeles, Department of Health Services, Public Health.

SB PUEBLO website. 2010. PUEBLO. from http://www.sbpueblo.org/.

SBCPD S. B. C. Planning and Development. 2002. *Goleta Valley urban agriculture*. Santa Barbara, CA: Santa Barbara County, Planning and Development.

SBFB. 2009. Santa Barbara Food Bank. from <http://www.foodbanksbc.org/index.html>.

Shimada, T. 2009. *Lost dollars, empty plates: The impact of food stamp participation on state and local economies*. California Food Policy Advocates.

Sparks, A., N. Bania, et al. 2009. Finding food deserts: Methodology and measurement of food access in Portland, National Poverty Working Center Paper.

Spieldoch, S. 2007. *A row to Hoe: The gender impact of trade liberalization on our food system, agricultural markets and women's human rights*. Germany: Friedrich-Ebert-Stiftung.

Stanford, L. 2009. The decline of food sovereignty and self-sufficiency. Society for Applied Anthropology Annual Meeting. Santa Fe, NM, Conference paper.

Townsend, M.S., G.J. Aaron, et al. 2009. Less-energy-dense diets of low-income women in California are associated with higher energy-adjusted diet costs. *American Journal of Clinical Nutrition* 89(4): 1220–1226.

Townsend, M.S., J. Peerson, et al. 2001. Food insecurity is positively related to overweight in women. *American Institute of Nutrition* 131(6): 1738–1745.

Tripp, A. 1997. *Changing the rules: the politics of liberalization and the urban informal economy in Tanzania*. Berkeley: University of California Press.

UCLA. 2004. *Policy brief: Hunger in Los Angeles county affects over 200, 000 low income adults, another 560, 000 at risk*. Los Angeles: UCLA Center for Health Policy Research.

UNDP. 1996. *Urban agriculture: Food, jobs and sustainable cities*. United Nations Development Programme, Publication Series for Habitat, Volume One. New York: UNDP.

Unger, S., and H. Wooten. 2006. *A food systems assessment for the city of Oakland, CA: Toward a sustainable food plan*. Oakland: Oakland Mayor's Office of Sustainability & UC Berkeley Department of City and Regional Planning.

USDHHS. 2010. 2009/2010 HHS Poverty Guidelines. from http://liheap.ncat.org/profiles/povertytables/FY2010/popstate.htm.

Van Esterik, P. 1999. Gender and sustainable food systems: A feminist critique. In *For hunger-proof cities*, ed. M. Koc, R. MacRae, L. Mougeot, and J. Walsh, 157–161. Ottawa: International Development Research Centre.

Velez-Ibanez, C. 1996. *Border visions: Mexican cultures of the southwest United States*. Tucson: University of Arizona Press.

Ver Ploeg, M. 2009. *Access to affordable and nutritious food: Measuring and understanding food deserts and their consequences*. USA: E. R. Service, United States Department of Agriculture.

Via Campesina. 2009. Food Sovereignty: A new model for a human right. Retrieved June 17, 2009, from http://www.viacampesina.org/main_en/index.php?option=com_content&task=blogcategory&id=21&Itemid=38.

Wekerle, G. 2004. Food justice movements: Policy, planning, and networks. *Journal of Planning Education and Research* 23: 378–386.

Wunderlich, G., and J. Norwood. 2006. *Food insecurity and hunger in the United States: An assessment of the measure*. Washington, DC: National Academies Press.

Young, L., and M. Nestle. 2007. Portion size and obesity: Responses of fast-food companies. *Journal of Public Health Policy* 28(2): 238–248.

Young, S. 2008. Season of Hunger: A Crisis of Food Inflation and Shrinking Safety Nets in the US California. The Oakland Institute, from www.oaklandinstitute.org.

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